



Under the Big Sky June 26, 2008

Topics in this Edition:

- Cattle Warning Workshop
- Fire Weather Watches/Red Flag Warnings
- VegDRI – Drought Information
- NWS Glasgow Happenings
- Upcoming Events
- NOAA News

Cattle Warning Workshop: Last week we held a workshop on the calf warning system we were developing with some university researchers. We had some excellent feedback, and thankfully we were on track with our proposed system, and also made some changes based on their comments. We hope to have the system working for Jan-May of 2009.

Fire Weather Watches/Red Flag Warnings: You've probably been hearing about the huge amounts of fires occurring in California right now. Our own fire season is just a few weeks away. NWS Glasgow does issue specific products for the fire agencies to notify them of dangerous fire weather conditions. A Fire Weather Watch lets agencies know that the weather conditions are favorable for fires to either be started (lighting) or carried (wind, humidity). A Red Flag Warning says that critical conditions are either occurring or will be occurring soon. We coordinate these products with the Miles City and Lewistown BLM fire personnel as well. The conditions that are used for issuing watches and warnings are below, as well as a decision chart that helps us on borderline cases:

1. Scattered dry thunderstorms. (A lightning storm accompanied by less than a wetting rain, 0.10 inch precipitation or less, often with very gusty winds).
2. Increased thunderstorm activity, wet or dry, during an extremely dry period.
3. Strong or gusty surface winds (e.g., 20 mph sustained, 30 mph gusts), along with low relative humidities (e.g., less than 20 percent). (See decision tree)
4. Abrupt increase in winds and change in direction due to the approach and passage of a cold front, squall line, or other weather phenomena other than isolated thunderstorms.
5. In coordination with fire agencies, anytime the forecaster foresees a change in weather that would result in a significant increase in fire danger.

RED FLAG DECISION CHART

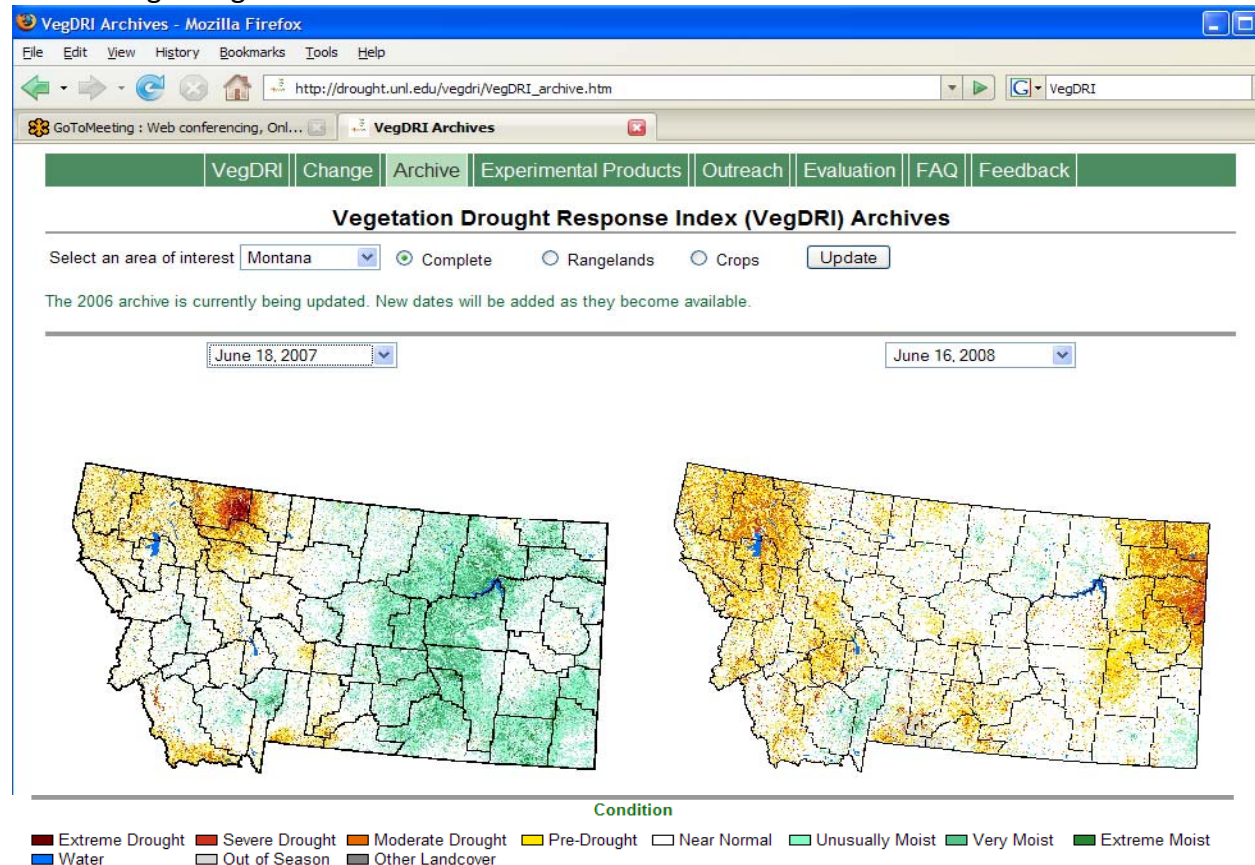
RELATIVE HUMIDITY

	40%	35%	30%	25%	20%	15%	10%	5%	
20' WIND MPH	5	NO	NO	NO	NO	NO	Poss	Poss	Prob
	10	NO	NO	NO	NO	Poss	Poss	Prob	YES
	15	NO	NO	NO	Poss	Poss	Prob	YES	YES
	20	NO	NO	Poss	Poss	Prob	YES	YES	YES
	25	Poss	Poss	Poss	Prob	YES	YES	YES	YES
	30	Poss	Poss	Prob	Prob	YES	YES	YES	YES
	35	Poss	Prob	YES	YES	YES	YES	YES	YES
	40	Prob	Prob	YES	YES	YES	YES	YES	YES

VegDRI: This past March we had the National Drought Mitigation Center come to Wolf Point and present on some new products they had. One of them was a look at the Vegetative Drought Response Index maps. This incorporates satellite data and other information to take a look at vegetative stress. The product is available online at:

http://drought.unl.edu/vegdiri/VegDRI_Main.htm?EV

Below is a comparison graphic showing you the conditions in Montana from mid-June 2007 compared to mid-June this year. It's quite a difference, and even though some areas have had above (some were much, much above) normal moisture since May 1st, the lack of good subsoil moisture is likely what is causing the index to show extreme northeastern Montana to be in such strong drought conditions.



NWS Glasgow Happenings:

Wild West Days: Our Meteorologist in Charge, Steve Apfel and his wife were able to attend the Wild West Day's event in Poplar. They spoke to several hundred people, and even got to meet with a lightning victim who was indirectly struck in Poplar on June 13th. You can read more about his story at: http://fpj.sartek.com/articles.php?action=view_issue&vol=2007&iss=25

County Assist Team Fire Camp: Our Incident Meteorologist (IMET) Patrick Gilchrist recently spent a day with some firefighters who were training at a fire camp in northern Petroleum County. Patrick's position as an IMET means that during large fire events across the United States, he will actually be deployed to the fire incident command site, and work hand in hand with the fire behavior analyst to get the weather forecast to the incident command team. The forecasts he issues also be used in their predictions for fire growth and behavior, and helps the fire teams determine how many resources they need, and where to place them.

Upcoming events:

Water Carnival: June 28th at Fort Peck Interpretive Center 10 am to 3 pm— we'll have water balloons there, and a CoCoRaHS rain gage, see how much "Rain" you can get into the gage with your weather balloons! We'll have some prizes for the kids and hopefully recruit a few more CoCoRaHS observers.

Go Green! I'm working with the US Army Corps of Engineers in planning the "Go Green!" event at the Fort Peck Interpretive Center on July 18th from 10 am to 3 pm. We'll have an electric car on display as well as some presentations on Global Warming, E-waste, and other "green" topics. We'll have lots of information for you, and hands on activities for the kids as well.

NOAA News:

Climate report released: A recent report was released from the U.S. Climate Change Science Program. It is indicating that droughts, heavy downpours, excessive heat, and intense hurricanes are likely to become more commonplace. To read the summary of the report: http://www.noaanews.noaa.gov/stories2008/20080619_climatereport.html

Previous Glendive native receives prestigious NOAA Award: Alexander "Sandy" MacDonald, a former Glendive resident who graduated from Glendive HS, was a finalist for the prestigious 2008 Service to America Award by the Partnership for Public Service. Dr. MacDonald is the director of the NOAA Earth Systems Research Laboratory in Boulder, CO as well as the deputy assistant administrator of NOAA Office of Oceanic and Atmospheric Research. I met him in line for lunch at a conference one time when he overheard me telling someone I was from Glasgow, MT, and saw him the next year at the same conference again. He's a very gracious person, and you can tell he's got some Montana roots by his approachable and friendly personality. I didn't even realize how high up the food chain he was when I met him, it was only later I realized his position in NOAA! There's a photo of him in the article below in case you're from the Dawson County area and may remember him.

http://www.noaanews.noaa.gov/stories2008/20080624_scientists.html

You may be surprised to know that there are several more NE Montana natives who are involved in the weather field as well. Treste Huse grew up just outside of Sidney, MT and is the Service Hydrologist for the Denver/Boulder NWS office. Our IMET/Lead Forecaster Patrick Gilchrist is also a Glasgow native. Corey Wolff grew up on a farm south of Circle and is a meteorological researcher with the National Center for Atmospheric Research in Boulder, CO.

If you are looking for an educational site to keep your kids or grandkids busy through the summer, take a look at: <http://oceanexplorer.noaa.gov/> There are maps, audio records from below the ocean surface, videos and photos from underwater volcanoes, coral reefs, ship wrecks and many other items.

As we end the week, which was National Lightning Safety Awareness Week, I thought I would share a video with you from the Weather Channel on lightning safety:

http://www.weather.com/multimedia/videoplayer.html?clip=11195&from=hp_video_5